JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas & Mining

MICHAEL R. STYLER
Executive Director
JOHN R. BAZA
Division Director

Supervisor DJH

Inspection Report
Minerals Regulatory Program
Report Date July 8, 2005

Mine Name: Lisbon Valley
Operator Name: SUMMO USA
Permit number: M/037/088
Inspection Date: May 19, 2005
Time: about 8:30 to 10:45 AM

Inspector(s): Paul Baker, Doug Jensen, Tom Munson, Susan White, and Mark Mesch
Other Participants: We met Lantz Indergard and Chuck Bauer in the office. Another person kindly guided us around the mine site, but we did not note his name.
Mine Status: Active
Weather: Mostly clear, 60's

Elements of Inspection	Evaluated	Comment	Enforcement
1. Permits, Revisions, Transfer, Bonds	☒	☒	☐
2. Public Safety (shafts, adits, trash, signs, highwalls)	☐	☐	☐
3. Protection of Drainages / Erosion Control	☒	☒	☐
4. Deleterious Material	☐	☐	☐
5. Roads (maintenance, surfacing, dust control, safety)	☐	☐	☐
6. Concurrent Reclamation	☐	☐	☐
7. Backfilling/Grading (trenches, pits, roads, highwalls, shafts, drill holes)	☐	☐	☐
8. Water Impoundments	☒	☒	☐
9. Soils	☒	☒	☐
10. Revegetation	☐	☐	☐
11. Air Quality	☐	☐	☐
12. Other	☒	☒	☐

Purpose of Inspection:
We wanted to look at various issues relating to sediment control, topsoil salvage, liner installation, the commencement of mining operations, and wells and exploration.

Inspection Summary:
1. Permits, Revisions, Transfer, Bonds
On April 29, 2005, the Division received a draft reclamation contract that would increase the size of the disturbed area. No change in the bond is needed because the operator has already bonded for 395 acres with only about 214 acres disturbed under the $3.5 million bond. During this inspection, the operator hand delivered a signed copy of the reclamation contract, and the Division notified the operator of deficiencies in the reclamation contract by a letter dated June 6, 2005. The operator responded to this letter on June 20, 2005.

As part of this inspection, I met with Chuck Bauer, the operator's well driller, to talk about which wells have been drilled, which ones have not been drilled, and what additional drilling will still be done.

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

3. Protection of Drainages/Erosion Control
The mine plan includes construction of sediment ponds, but these have not yet been built. Adjacent to the process water ponds two storm water pond have been designed to collect excess runoff from the leach pads in case of a major precipitation event, but these ponds were not yet functional. Some temporary sediment controls (silt fences) have apparently been placed in a drainage adjacent to the process and storm water ponds, but we were not aware of this when we were at the site and did not examine them. The implementation of erosion control, diversions, etc. really needs to occur prior to any construction of facilities . It was not apparent during the inspection that any was installed per approved designs and as such needs to be implemented immediately.

8. Water Impoundments
Photos 1 and 2 show two stages of liner installation in the ponds. In Photo 1, the clay liner is being installed. This clay was being mined from an area adjacent to the Centennial Pit (Photo 3). Photo 2 shows the HDPE liner with geotextile being installed.

At the time of our visit the operator was lowering the elevations of the pond overflows, it seems that at the initial elevation, solutions in the ponds would cover the leach pad leak detection pipes. The Department of Environmental Quality requires that these pipes always be exposed to allow the operator to monitor for leaks in the heap liner.

Leak detection pipes for the ponds were also being placed in the low corner of the solution ponds after the secondary liner and geotextile were installed.

9. Soils
Some of the soils that were salvaged from the disturbed areas were used to line the ponds and possibly the heap leach area. Since the inspection, I have discussed this concern with Mr. Indergard, and he has surveyed the soil stockpiles. As expected, there was a shortage, but he has found areas from which additional soils can be salvaged to make up this shortfall.

12. Other
The operator was working to grade the heap leach pad areas and was installing electronic displacement meters during the inspection. The site was orderly and well maintained.

The material to be placed at the base of the heap leach piles and over the HPDE liner was being mined from one of the Sentinel Pits, I believe Sentinel #2. The stockpile of this material is shown in the center-right background of Photo 4. This material will serve as a drain base for ore that will be placed on the heaps.

Conclusions and Recommendations:
The Division needs to respond to the operator's June 20, 2005, submittal.

Based on the meeting with Chuck Bauer, the Division and the operator need to revise and consolidate the reclamation contracts (there are two for this site). Some of the wells are covered under both contracts.

In 2004, the operator permitted an area for storing the crusher. It was bonded under a reclamation contract the operator has been using for wells and exploration sites. This area has now been absorbed into the mine disturbed area, so it could be excluded from the other reclamation contract and bond. This should probably be done at the same time as changes are being made in association with the bond for the wells.

Inspector's Signature _____ **Date:** July 8, 2005

PBB:jb
cc: Lantz Indergard, SUMMO
Frank Bain, Moab BLM
Attachment: Photo Attachment
O:\M037-SanJuan\M0370088-LisbonValley-Summo\inspections\ins-05192005.doc

PHOTO ATTACHMENT
M/037/088, Lisbon Valley Mine, SUMMO USA, Inc.
Inspection Dated: May 19, 2005; Report Dated: July 8, 2005

Photo 1. The clay liner being installed on the slopes of the raffinate pond.

Photo 2. Secondary HDPE liner and geotextile being installed in the pregnant solution pond. Trackhoe working to lower pond overflow cut in the background.

Photo 3. The area from which clay is being taken is in the dusty background near the center of this photo.

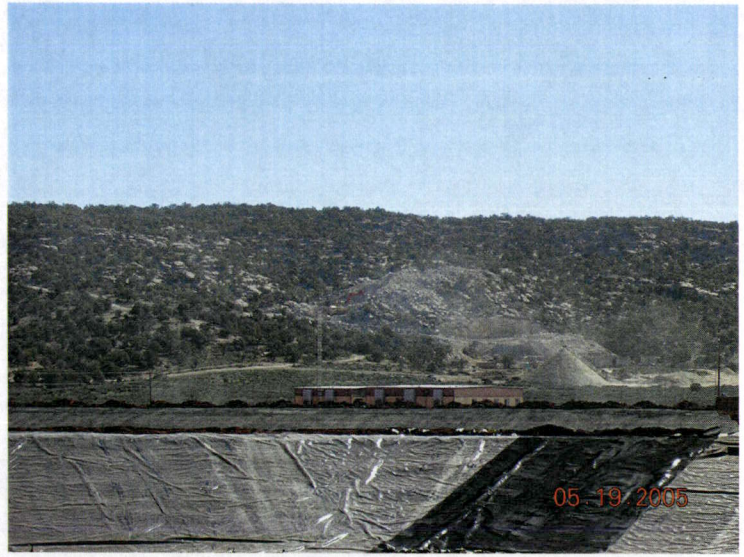

Photo 4. The overliner (or underliner depending on who you're talking to) material stockpile is in the background in the center right of this photo.

Photo 5. Overview of the heap leach pad.

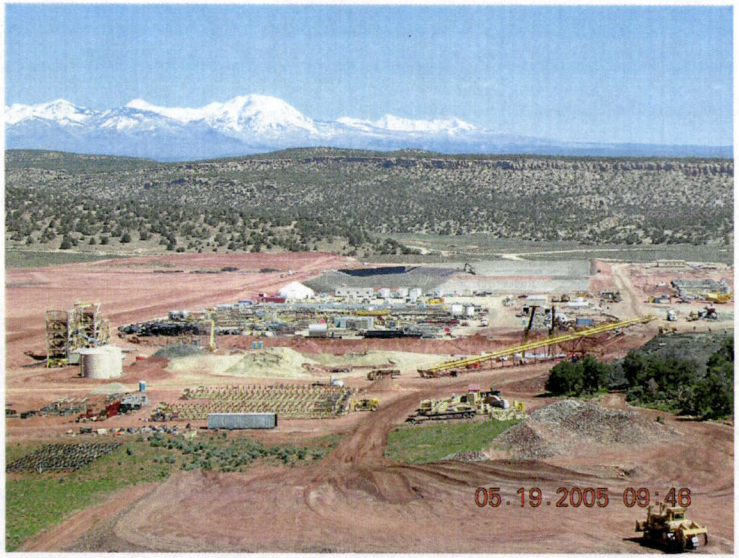

Photo 6. Overview of the facilities area, solution ponds in the background.